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Claims

1. A print producing apparatus for producing a print on which a holographic stereogram image or a hologram image is exposed and recorded to, the apparatus comprising:

recording medium conveying means for intermittently conveying a strip-like hologram recording medium on which plural holographic stereogram images or hologram images are exposed and recorded to;

cutting out means for cutting out a region at least including said holographic stereogram images or said hologram images exposed and recorded, from said hologram recording medium intermittently conveyed by said recording medium conveying means;

positioning means for determining a position where a piece of said recoding medium designed for said hologram is cut out by said cutting out means;

film retaining means for retaining plural pieces of protecting film for protecting both sides of said piece of said hologram recording medium;

film supplying means for supplying a single piece from among said plural pieces of said plastic film retained by said film retaining means to a position while said single piece is folded in two;

film opening and closing means for opening and closing said single piece of said protecting film folded in two along a folding line by said film supplying means supplied to said position; and

heating and pressure-bonding means for heating and pressure-bonding said piece of said plastic film folded to an original status manner along said folding line by said film opening and closing means, wherein at least said hologram recording medium is sandwiched by said plastic film.

2. The print producing apparatus according to claim 1, further comprising:

transferring means for transferring each of said pieces of said hologram recording medium cut out by said cutting means onto one of said protecting film opened along said folding line by said film opening and closing means.

3. The print producing apparatus according to claim 1, further comprising:

mounting retaining means for retaining plural sheets of mountings; and supplying means for supplying one of said plural sheets of mounting one by one onto one of said protecting film opened along said folding line by said film opening and closing means; wherein

said heating and pressure-bonding means heats and pressure-bonds said plastic film along said folding line by said film opening and closing means while said plastic film is folded into an original status, wherein said plastic film sandwiches said mounting provided by said base supplying means and said piece of said hologram recording medium.

4. The print producing apparatus according to claim 3, further comprising:

transferring means for transferring each of said pieces of said hologram recording medium cut out by said cutting means onto said mounting provided by said mounting supplying means on one of said protecting film opened along said folding line by said film opening and closing means.

5. The print producing apparatus according to claim 1, wherein

said positioning means comprises:

light source means for illuminating said hologram recording medium intermittently supplied by said recording medium supplying means from another position; and

imaging means for reading out a diffraction image reproduced by illuminating light from said light source means; and

said recording medium supplying means, intermittently supplying operation of said hologram recording medium is controlled according to a result of reading-out of said diffraction image by said imaging means.

6. The print producing apparatus according to claim 5, wherein said imaging means reads out an edge portion of said diffraction image of said holographic stereogram image or said hologram image reproduced by said illuminating light from said light source means.

7. The print producing apparatus according to claim 5, wherein an identification image is exposed and recorded forward or backward of each of holographic stereogram images or each of hologram images on said hologram recording medium in a longitudinal direction of said recording medium; and

said imaging means reads out said diffraction images of said identification image reproduced by illumination light from said light source means.

8. The print producing apparatus according to claim 7, wherein said identification image is formed in a line-shaped or dot-shaped manner.

9. A print producing method for producing a print on which a holographic stereogram image or a hologram image is exposed and recorded to, the method comprising the following steps of:

intermittently conveying a strip-like hologram recording medium in which plural holographic stereogram images or hologram images are exposed and recorded;

positioning and cutting out a region including said holographic stereogram images or said hologram images exposed and recorded, from said hologram recording medium intermittently conveyed;

supplying a single piece of said protecting film from among said plural pieces for both protecting sides while said single piece is folded in two;

opening said single piece of said protecting film folded in two along a folding line; and

heating and pressure-bonding said piece of said protecting film folded into an original status manner along said folding line, wherein at least said hologram recording medium is sandwiched by said protecting film.

10. The print producing method according to claim 9, wherein said cut out hologram recording medium is transferred onto a single sheet of said protecting film opened along said folding line.

11. The print producing method according to claim 9, further comprising the steps of:

supplying one of plural sheets of mountings one by one onto one of said protecting film opened along said folding line; and

heating and pressure-bonding said protecting film along said folding line while said protecting film is folded into an original status, wherein said mounting provided by said supplying and said piece of said hologram recording medium are sandwiched with said protecting film.

12. The print producing method according to claim 11, further comprising the step of:

transferring each of cut out pieces of said hologram recording medium onto said mounting provided s on one of said protecting film opened along said folding line.

13. An image cutting out apparatus comprising:

recording medium conveying means for intermittently conveying a strip-like hologram recording medium on which plural holographic holographic stereogram images or hologram images are exposed and recorded to;

cutting out means for cutting out a region including at least said holographic stereogram images or hologram images exposed and recorded by said hologram recording medium intermittently conveyed by said recording medium conveying means; and

positioning means for determining a position where a piece of said recording medium is cut out from said hologram recording medium by said cutting out means.

14. The image cutting out apparatus according to claim 13, wherein

said positioning means comprises:

light source means for illuminating said hologram recording

medium intermittently conveyed by said recording medium conveying means from a predetermined position; and

imaging means for reading out a diffraction image reproduced by illuminating light from said light source means; and

said recording medium feeding means, intermittently feeding operation of said hologram recording medium is controlled, depending on a result of reading-out of said diffraction image by said imaging means.

15. The image cutting out apparatus according to claim 14, wherein said imaging means reads out an edge portion of said diffraction image of said holographic stereogram image or said hologram image reproduced by said illuminating light from said light source means.

16. The image cutting out apparatus according to claim 14, wherein an identification image is exposed and recorded forward or backward of each holographic stereogram image or each of hologram image on said hologram recording medium in a longitudinaldirection of said recording medium, and

said imaging means reads out said diffraction image of said identification image reproduced by said illumination light from said illumination means.

17. The image cutting out apparatus according to claim 16, wherein said identification image is formed in a line-shaped or a dot-shaped manner.

18. The image cutting out apparatus according to claim 13, further comprising transferring means for transferring a piece of said hologram recording medium cut out by said cutting out means.

19. An image cutting out method, further comprising the following steps of:

intermittently conveying a strip-like hologram recording medium on which plural holographic stereogram images or hologram images are exposed and recorded to; and

positioning and cutting out a region including at least said holographic stereogram images or hologram images exposed and recorded, among said hologram recording medium intermittently conveyed.

20. The image cutting out method according to claim 19, further comprising the steps of:

illuminating said hologram recording medium intermittently conveyed;

reading out a diffraction image reproduced from said illuminating; and

controlling an intermittently conveying operation of said hologram recording medium, according to a result of reading out of said diffraction image by said imaging.

21. A laminating apparatus for laminating with protecting film a hologram recording medium on which a holographic stereogram image or a hologram image is exposed and recorded to , the apparatus comprising:

retaining means for retaining plural pieces of said protecting film;

supplying means for supplying one by one said plural pieces of said protecting film retained by said film retaining means folded in two;

film opening and closing means for opening or folding, along a folding line, a single sheet of said protecting filmupplied and folded in two; and

heat and pressure-bonding means for heating and pressure-bonding said protecting film folded along said folding line into an original status by said film opening and closing means, wherein at least said hologram recording medium is sandwiched by said protecting film.

22. The laminating apparatus according to claim 21, further comprising:

transferring means for transferring a piece of said hologram recording medium onto a single sheet of said protecting film opened by said film opening and closing means along a folding line.

23. The laminating apparatus according to claim 21, further comprising:

retaining means for retaining plural sheets of mounting; and

mounting supplying means for supplying one by one said plural sheets of said mounting retained by said retaining means onto a single sheet of said protecting film opened along said folding line by said film opening and closing means; wherein

said heating and pressure-bonding means heats and pressure-bonds said protecting film folded to an original status along said folding line of said protecting film by said film opening and closing means, wherein said mounting provided on a single piece of said protecting film by said mounting supplying means and said hologram recording medium are sandwiched by said protecting film.

24. The laminating apparatus according to claim 23, further comprising:

transferring means for transferring a piece of said hologram recording medium to said mounting provided by said mounting supplying means onto a

sheet of said protecting film opened along said folding line by said film opening and closing means.

25. A laminating method for laminating a piece of a hologram recording medium on which a holographic stereogram image or a hologram image is exposed and recorded to with a protecting film for protecting both sides of said film, the method comprising the steps of:

supplying one by one said plural pieces of said protecting film folded in two;

opening along a folding line a single sheet of said protecting film supplied folded in two; and

heating and pressure-bonding said protecting film along said folding line into an original status, wherein at least said hologram recording medium is sandwiched by said protecting film.

26. The laminating method according to claim 25, further comprising the step of:

transferring each of said pieces of said hologram recording medium onto one of said protecting film opened along said folding line.

27. The laminating method according to claim 25, further comprising the steps of:

supplying one of said plural sheets of mounting one by one onto one of said protecting film opened along said folding line; and

heating and pressure-bonding said protecting film along said folding line while said protecting film is folded into an original status, wherein said

protecting film sandwiches said supplied mounting and said piece of said hologram recording medium.

28. The laminating method according to claim 27, further comprising the step of:

conveying each of said pieces of said hologram recording medium onto said mounting provided onto one of said protecting film opened along said folding line.

29. An image recording apparatus sequentially exposing and recording plural holographic stereogram images or hologram images onto a strip-like hologram recording medium, the image recording apparatus comprising:

recording means for exposing and recording said plural holographic stereogram images or hologram images onto said hologram recording medium, and exposing and recording an identification image at a forward or backward portion of each of holographic stereogram images or each of hologram images in a longitudinal direction of said hologram recording medium.

30. The image recording apparatus according to claim 29, wherein said identification image is formed in a line-shaped or dot-shaped manner.

31. An image recording method for sequentially exposing and recording plural holographic stereogram images or hologram images, onto a strip-like hologram recording medium, the image recording method comprising the steps of:

exposing and recording said recording plural holographic stereogram images or hologram images onto said hologram recording medium; and

exposing and recording an identification image at a forward or backward portion of each of holographic stereogram images or each of hologram images in a longitudinal direction of said hologram recording medium.